

CLAIMS

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1. Interface means (IM) between a network switch (SSP) and a CTI server means (CTS), characterised in that

5 said interface means (IM) is adapted to communicate between a service switching function device (SSF) having a service switching functionality and included within said network switch (SSP) and said CTI server means (CTS)

2. Interface means (IM) according to claim 1 characterised in that

10 said interface means (IM) further includes a CTI call handling device (CTICH) adapted to receive from said CTI server means (CTS) a CTI call handling message (CTICHIN), and to perform on a call associated with said CTI call handling message (CTICHIN) at least one CTI call service scenario (CSCEN1).

3. Interface means (IM) according to claim 2 characterised in that

15 said CTI call handling device (CTICH) is further adapted to generate, upon performing said at least one CTI call service scenario, at least one returning CTI call handling message (CTICHOUT2) for delivery to said CTI server means (CTC).

4. Interface means (IM) according to claim 2 characterised in that

25 said CTI call handling device (CTICH) is further adapted to generate, upon performing said at least one CTI call service scenario (CSCEN1), at least one service request control message (SCRM1) for delivery towards said service switching function device (SSF) within said network switch (SSP).

30 5. Interface means (IM) according to claim 1 characterised in that

5 said interface means (IM) further includes a mapping device (MD) adapted to receive from said service switching function device (SSF) within said network switch (SSP) a public switching call handling message (PSCHin), and to perform on a call associated with said public switching call handling message (PSCHIN) at least one public switching call service scenario (SCEN1).

6. Interface means (IM) according to claim 5 characterised in that

10 said mapping device (MD) is further adapted to generate, upon performing said at least one public switching call service scenario (SCEN1), at least one returning public switching call handling message (PSCHOUT1) for delivery to said service switching function device (SSF) within said network switch (SSP).

15 7. Interface means (IM) according to claim 5 characterised in that

20 said mapping device (MD) is further adapted to generate, upon performing said at least one public switching call service scenario (SCEN1), at least one control message (CM1) for delivery towards said CTI server means (CTS).

8. Interface means (IM) according to claims ~~2 and 5~~ characterised in that

25 said CTI call handling device (CTICH) is further adapted to receive from said mapping device (MD) a mapping device message (CM1;CMn+1), and to perform, on a particular call associated to said mapping device message, at least one other CTI call service scenario (CSCENI+1;CSCENI+k).

30 9. Interface means (IM) according to claim 8 characterised in that

said CTI call handling device (CTICH) is further adapted to generate,

Sub B3 upon performing said at least one other CTI call service scenario (CSCENI+1;CSCENI+k), at least one other returning CTI call handling message (CTICHOUT1;CTICHOUT1') for delivery to said CTI server means (CTC).

5 10. Interface means (IM) according to claim 8 characterised in that said CTI call handling device (CTICH) is further adapted to generate, upon performing said at least one other CTI call service scenario (CSCENI+1), at least one other service request control message (SCRMI+1) for delivery towards
10 said mapping device (MD).

Sub B4 11. Interface means (IM) according to claims ~~2 and 5~~ characterised in that said mapping device (MD) is further adapted to receive from said CTI
15 call handling device, a CTI call handling device message (SCRM1;SCRM1+1), and to perform on a specific call associated to said CTI call handling device message (SCRM1; SCRM1+1), at least one other public switching call service scenario (SCENn+1;SCENn+m).

20 Sub B5 12. Interface means (IM) according to claim 11 characterised in that said mapping device (MD) is further adapted to generate , upon performing said at least one other public switching call service scenario (SCENn+1;SCENn+m), at least one other returning public switching call
25 handling message (PSCHOUT3;PSCHOUT3') for delivery towards said service switching device (SSF).

30 13. Interface means (IM) according to claim 11 characterised in that said mapping device (MD) is further adapted to generate, upon performing said at least one other public switching call service scenario

(SCEN_{n+1}), at least one other control message (CM_{n+1}) for delivery towards said CTI call handling device (CTICH).

5 14. Interface means (IM) according to claim 2 characterised in that said CTI call handling device (CTICH) is further adapted to

- determine the value of the CTI call attributes of said call, upon receiving said CTI call handling message (CTICHIN)
- determine at least one updated value of the CTI call attributes of said

10 call, upon performing said at least one CTI call service scenario (CSCEN1).

15 15. Interface means (IM) according to claim 5 characterised in that said mapping device (MD) is further adapted to

- determine the value of the public switching call attributes of said call, upon receiving said public switching call handling message (PSCHIN)
- determine at least one updated value of the CTI call attributes of said

call, upon performing said at least one public switching call service scenario (SCEN1).

20 16. Interface means (IM) according to claim 8 characterised in that said CTI call handling device (CTICH) is adapted to

- determine the value of the CTI call attributes of said particular call,

25 upon receiving said mapping device message

- determine at least one updated value of the CTI call attributes of said particular call, upon performing said at least one other CTI call service scenario.

30 17. Interface means (IM) according to claim 11 characterised in that said mapping device (MD) is further adapted to

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- determine the value of the public switching call attributes of said specific call, upon receiving said CTI call handling device message

- determine at least one updated value of the public switching call attributes of said specific call, upon performing said at least one other public switching call service scenario .

18. Interface means (IM) according to claim 14 characterised in that

said CTI call handling device (CTICH) is further adapted to receive from said CTI server means (CTS) a succession of incoming CTI call handling messages including said CTI call handling message (CTICHIN),

said CTI call handling device (CTICH) further includes first selection means (SM1) adapted to receive an incoming CTI call handling message of said succession, and to forward said incoming CTI call handling message to a CTI call service scenario device of a first plurality of CTI call service scenario devices (CSCEN1,...,CSCENI) included within said CTI call handling device (CTICH), each of said CTI call service scenario devices of said first plurality being adapted to perform a distinct CTI call service scenario,

said CTI call service scenario device of said first plurality is thereby selected by said first selection means (SM1) based upon at least one value of the CTI call attributes of the call associated to said incoming CTI call handling message.

19. Interface means (IM) according to claim 15 characterised in that

said mapping device (MD) is further adapted to receive from said service switching function device (SSF), a succession of incoming public switching call handling messages including said public switching call handling message (PSCHIN),

said mapping device (MD) further includes second selection means (SM2) adapted to receive an incoming public switching call handling message of

5 said succession, and to said incoming public switching call handling message to a public switching call service scenario device of a second plurality of public switching call service scenario devices (SCEN1,...,SCENn) included within said mapping device, each of said public switching call service scenario devices of said second plurality being adapted to perform a distinct public switching call service scenario,

10 said public switching call service scenario device of said second plurality is thereby selected by said second selection means (SM2), based upon at least one value of the public switching call attributes of the call associated to said incoming public switching call handling message.

20. Interface means (IM) according to claim 16 characterised in that

15 said CTI call handling device (CTICH) is further adapted to receive a succession of incoming mapping device messages including said mapping device message,

20 said CTI call handling device (CTICH) further includes a third selection means (SM3) adapted to an incoming mapping device messages of said succession, and to forward said mapping device message to a CTI call service scenario device of a third plurality of CTI call service scenario devices (CSCENI+1,...,CSCENI+k) included within said CTI call handling device (CTICH), each of said CTI call service scenario devices of said third plurality being adapted to perform a distinct CTI call service scenario,

25 said CTI call service scenario device of said third plurality is thereby selected by said third selection means (SM3) based upon at least one value of the CTI call attributes of the call associated to said incoming mapping device message.

30 21. Interface means (IM) according to claim 17 characterised in that

said mapping device (MD) is further adapted to receive a succession

of incoming CTI call handling device messages, including said CTI call handling device message,

said mapping device (MD) further includes fourth selection means (SM4) adapted to receive an incoming CTI call handling device message of said succession and to forward said CTI call handling device message to a public switching call service scenario device of a fourth plurality of public switching call service scenario devices (SCEN_{n+1}, ..., SCEN_{n+m}) included within said mapping device, each of said public switching call service scenario devices of said fourth plurality being adapted to perform a distinct public switching call service scenario,

said public switching call service scenario devices of said fourth plurality is thereby selected by said fourth selection means (SM4), based upon at least one value of the public switching call attributes of the call associated to said incoming CTI call handling device message.

22. Interface means (IM) according to claims ~~18 and 20~~²⁰ characterised in that

the CTI call service scenario's performed by the CTI call service scenario devices of said first plurality are substantially different from the CTI call service scenario's performed by the CTI call service scenario devices of said third plurality.

23. Interface means (IM) according to claims ~~19 and 21~~²¹ characterised in that

the public switching call service scenario's performed by the public switching call service scenario devices of said second plurality (SCEN₁, ..., SCEN_n) are substantially different from the public switching call service scenario's performed by the public switching call service scenario devices of said fourth plurality (SCEN_{n+1}, ..., SCEN_{n+m}).

24. Interface means (IM') according to claim 1

characterised in that

said interface means (IM') is adapted to communicate between a plurality of service switching function devices (SSF,SSF1,SSF2,SSF3) including said service switching function device (SSF), and said CTI server means (CTS) , each of
5 said service switching function devices having a service switching functionality.

25. Interface means (IM') according to claim 1
characterised in that

said interface means (IM') is adapted to communicate between said
10 service switching function device (SSF) and a plurality of CTI server means (CTS,CTS1,CTS2), including said CTI server means (CTS).

26. Apparatus (A) for providing a service to at least one customer (C),
said apparatus including a network switch (SSP) which is coupled to a computer
including a CTI server means (CTS), said CTI server means (CTS) being coupled
15 via an application programming interface (API) to an executable means (EM1,...,EM5) , said executable means being adapted to execute said service

characterised in that

said apparatus (A) further includes interface means (IM) coupled
between said network switch (SSP) and said CTI server means (CTS), said
20 interface means (IM) being adapted to communicate between a service switching function device (SSF) having a service switching functionality and included within said network switch (SSP), and said CTI server means (CTS).

27. Apparatus according to claim 26

25 characterised in that

said interface means (IM) is further adapted as mentioned ~~by any of~~
~~the claims 2 to 23.~~

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28. Apparatus according to claim 26

characterised in that

30 said apparatus further includes at least one other service switching

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said apparatus further includes at least one other CTI server means (CTS1,CTS2) coupled to said interface means (IM').

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